

# Operations

## Unmute an output

Press the **UNMUTE** button to unmute all video and audio outputs. All of the switcher's Output LEDs flash on for a second.

## Troubleshooting

If the switcher does not properly respond to IR remote control functions, check the following:

- You may be too far from the switcher. The maximum operating range is 30 feet.
- You may be too far to the side of the switcher. The remote control must be pointed within 30 degrees of the switcher's IR sensor for best results.
- You may be taking too long to enter the sequence. The unit times out if no command is received in 5 seconds.
- The two AAA batteries may be dead. Replace the batteries as shown in figure 1.
- The switcher's front panel security lockout may be on. Toggle the security lockout off. See the appropriate switcher's manual.
- The room lighting may be interfering with the IR signals. Keep the switcher out of bright light.

# Extron® Electronics

INTERFACING, SWITCHING AND DISTRIBUTION



## User's Guide



**IR 501**

**Small Matrix IR Remote Control**



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# Introduction

## About this User's Guide

This user's guide covers the Extron IR 501 Small Matrix Infrared (IR) Remote Control, part #70-336-01. The IR 501 is an optional remote control that works with Extron matrix switchers. The remote control can duplicate most of the matrix switcher's front panel control functions and some of RS-232 control functions. The hand-held remote operates at a carrier frequency of 38 kHz.

**NOTE** Refer to the appropriate matrix switcher manual for definitions of ties, configurations, presets, and audio breakaway; and for more detailed descriptions of the switcher's front panel indications.

## Battery Installation

Install two AAA batteries as shown (figure 1).

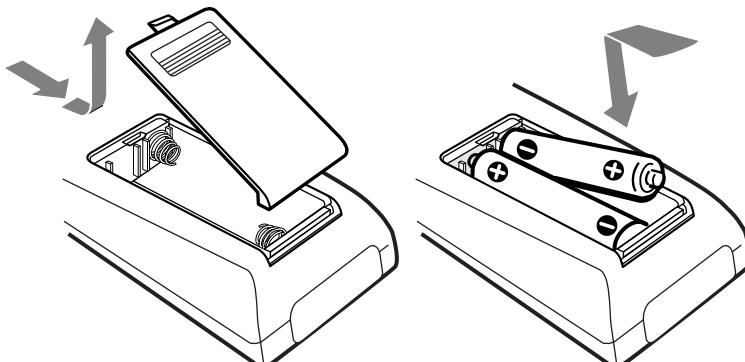


Figure 1 — Battery installation

## IR 501 Buttons

Aim the hand-held unit at the IR detector on the switcher and press the desired buttons on the remote. The maximum operating range is 30 feet.

After the definitions of the IR 501's buttons, see *Operations* for examples of using the IR 501 to perform various functions.

### I/O buttons

**① Input/Output Selection buttons** — The I/O buttons select inputs and outputs to tie. The switcher's front panel Input LEDs indicate the selected input or output.

These buttons also select among presets to save or recall.

**② +10 button** — The +10 button is used with the other I/O buttons to select numbers higher than 0 through 9.

**③ Enter button** — The Enter button saves changes when you create a new tie or configuration.

### {function} buttons

**④ Input and Output buttons** — The Input and Output buttons determine whether the I/O buttons select an input or output(s) when pushed.

**⑤ Video and Audio buttons** — The Video and Audio buttons select video or audio inputs and outputs when creating or viewing a tie or when muting an output.

**NOTE** The default selection is both video and audio selection. If you want to configure both video and audio, you do not need to push the Video or Audio button.

**⑥ Preset and Save buttons** — When you push the Preset button before you press an I/O button, the I/O button selects a preset to save or recall when it is pushed.

When you push the Save button before you push the Preset button, the current configuration is saved as a preset when you push an I/O button.

**⑦ Mute buttons** — The Mute button blanks the screen and/or silences the audio.

The Unmute button unmutes all video and audio outputs.

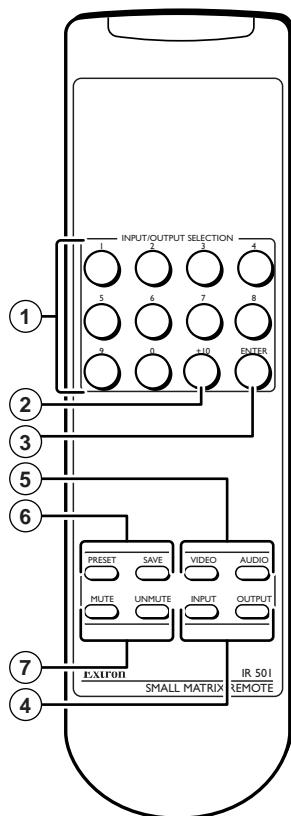


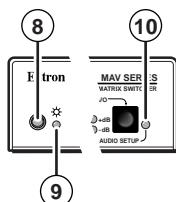
Figure 2 — IR 501 buttons

# Indications

## Switcher Indications

It is not the purpose of this manual to define the switcher's front panel indications, but two of the switcher's LEDs indicate operation by the IR 501 remote control (figure 3).

Other indications are identified where appropriate in the *Operations* section.

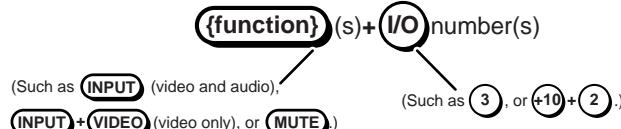


**Figure 3 — Switcher features**

- ⑧ **Infrared remote sensor** — This sensor receives infrared (IR) signals from the optional IR 501 small matrix universal remote control. The IR remote control must be pointed within 30 degrees of this sensor for best results.
- ⑨ **Power LED** — This LED blinks off and on to indicate that an IR signal has been received.
- ⑩ **Audio Setup LED (A/V switchers only)** — This LED lights for a second when an improper or unexpected IR command is received.

## Operation

Most functions can be performed by pushing a similar sequence of **{function}** and **I/O** buttons (figure 4).



**Figure 4 — Button sequence**

- Video and audio operations require only one **{function}** button.
- Video-only or audio-only operations require two **{function}** buttons (one to identify the function, one to identify video or audio).
- For numbers higher than 9, press the **+10** button and then press the applicable **0** through **9** button.
- Creating a set of ties requires two sequences (the input sequence and then the output[s] sequence) and then the **ENTER** button.

## Sample Operations

**NOTE** The following examples show operations with specific input, output, and preset numbers. Use your own numbers as desired.

**NOTE** The switcher's Power LED flashes whenever the switcher receives an IR command. Other switcher indications are identified in the following examples where appropriate. For detailed descriptions of how the switcher indicates ties and presets, refer to the appropriate matrix switcher's manual.

**NOTE** Many operations require a sequence of IR commands. When multiple IR commands are required, the entire sequence must be completed within 5 seconds. If a valid sequence is not completed within 5 seconds, the switcher times out and discards all received IR commands.

### Create ties

By default, you create video and audio (audio follow) ties using the IR 501. By pushing one extra button you can create audio-breakaway ties.

1. Press the **INPUT** button to specify an input selection. The switcher's Video LED and Audio LEDs light.

**NOTE** To create video and audio ties, skip step 3.

2. Specify video or audio:
  - a. For video-only tie(s), press the **VIDEO** button to specify a video selection. The switcher's Video LED remains lit and the Audio LED goes off.
  - b. For audio-only tie(s), press the **AUDIO** button to specify an audio selection. The switcher's Audio LED remains lit and the Video LED goes off.
3. Press the **5** button to select input 5. The switcher's Input 5 LED lights.
4. Press the **OUTPUT** button to specify output selection(s).
5. Press the **3**, **4**, and **8** buttons to select outputs 3, 4, and 8. The switcher's selected Output LEDs blink.
6. Press the **ENTER** button to create the tie. The switcher displays the ties as described in the switcher's manual.

# Operations

## View ties

### View a tie by input selection

1. Press the **INPUT** button to specify an input to view the tied output(s). The switcher's Video LED and Audio LEDs light.
- NOTE** *To view video and audio ties, skip step 2.*
2. If desired, specify video-only or audio-only to view:
  - a. To view video-only tie(s), press the **VIDEO** button. The switcher's Video LED remains lit and the Audio LED goes off.
  - b. To view audio-only tie(s), press the **AUDIO** button. The switcher's Audio LED remains lit and the Video LED goes off.
3. Press the **5** button to select input 5. The switcher displays the tied outputs as described in the switcher's manual.
4. Allow the switcher's 5-second input and output button timeout to deselect the input.

### View a tie by output selection

1. Press the **OUTPUT** button to specify an output to view the tied input. The switcher's Video LED lights and the Audio LED lights (or blinks if audio is broken away).
- NOTE** *To view video and audio ties, skip step 2.*
2. If desired, specify video-only or audio-only to view:
  - a. To view video-only tie(s), press the **VIDEO** button. The switcher's Video LED remains lit and the Audio LED goes off.
  - b. To view audio-only tie(s), press the **AUDIO** button. The switcher's Audio LED remains lit and the Video LED goes off.
3. Press the **3** button to select output 3. The switcher displays the tied input and other outputs tied to that input as described in the switcher's manual.
4. Allow the switcher's 5-second input and output button timeout to deselect the output.

## Presets

### Save a preset

1. Create all desired ties.
2. Press the **SAVE** button to specify a save preset operation.
3. Press the **PRESET** button to specify preset mode. The switcher's Preset LED blinks and, for preset numbers that are within the switcher's total number of inputs and outputs, the Input or Output LEDs associated with existing presets light.

**NOTE** *If you save the current configuration to an existing preset, that preset's configuration will be overwritten.*

4. Press the **5** button to select preset 5. The current configuration is saved as preset 5.

### Recall a preset

1. Press the **PRESET** button to specify preset mode. The switcher's Preset LED lights and, for preset numbers that are within the switcher's total number of inputs and outputs, the Input or Output LEDs associated with existing presets light.
2. Press the **8** button to select preset 8. The ties that are saved as preset 8 become the current configuration.

## Mutes

### Mute an output

1. Press the **MUTE** button to specify a mute operation.
- NOTE** *To mute video and audio output, skip step 2.*
2. If desired, specify video-only or audio-only to mute:
  - a. To mute the video output, press the **VIDEO** button. The switcher's Video LED remains lit and the Audio LED goes off.
  - b. To mute audio output, press the **AUDIO** button. The switcher's Audio LED remains lit and the Video LED goes off.
3. Press only one **VO** button (**1** through **8**). The switcher's associated Output LED flashes on for a second.

**NOTE** *You can mute multiple outputs, but you can only perform the mute operation on one output at a time.*